ART. V.—*Note on the Alkaloids of Strychnos psilosperma.*

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Some time ago, Baron von Mueller kindly forwarded to one of us, for examination, a small parcel of fruits of Strychnos psilosperma. Baron von Mueller states that this species is not yet cultivated anywhere, and that his correspondent in sub-tropical Eastern Australia had watched the few plants there, in their native haunts, for several years, but that they never bore fruit till last year.

The method used for extraction of the alkaloids was as follows:—The fruits were pounded up as far as possible, and then nearly dried in the water oven. Ten grammes of this material was then mixed with a suitable quantity of lime, some water added, and the mixture dried on a water bath. It was then placed in a Soxhlet's apparatus and extracted for several hours with strong alcohol. The alcoholic extract, having been slightly acidified with sulphuric acid and filtered, was evaporated, again filtered, rendered alkaline with soda, and thoroughly extracted with chloroform. The chloroform extract, after evaporation, was again taken up in acidified water, filtered, again rendered alkaline, and extracted with chloroform. The residue, after evaporation, was then dried at 100° C. till constant. The weight of mixed alkaloids so obtained was ·031 gramme, which, allowing for about 4 per cent. of water still remaining in the nearly dried material, gives a yield of 0·32 per cent. Though every care was taken to make the extractions as thorough as possible, this result is doubtless below the truth; but allowing for experimental error, the yield of total alkaloids is not great in comparison with that obtained from some other species. Strychnos Ignatiæ, for example, yields about 1·5 per cent. of strychnine, and 0·5 per cent. of

brucine. It is quite possible, however, that under favourable conditions the yield would be much increased. The quantity of total alkaloids was so small, that a quantitative separation was not attempted. A qualitative separation, however, revealed the presence of both strychnine and brucine, the former apparently in considerable excess.